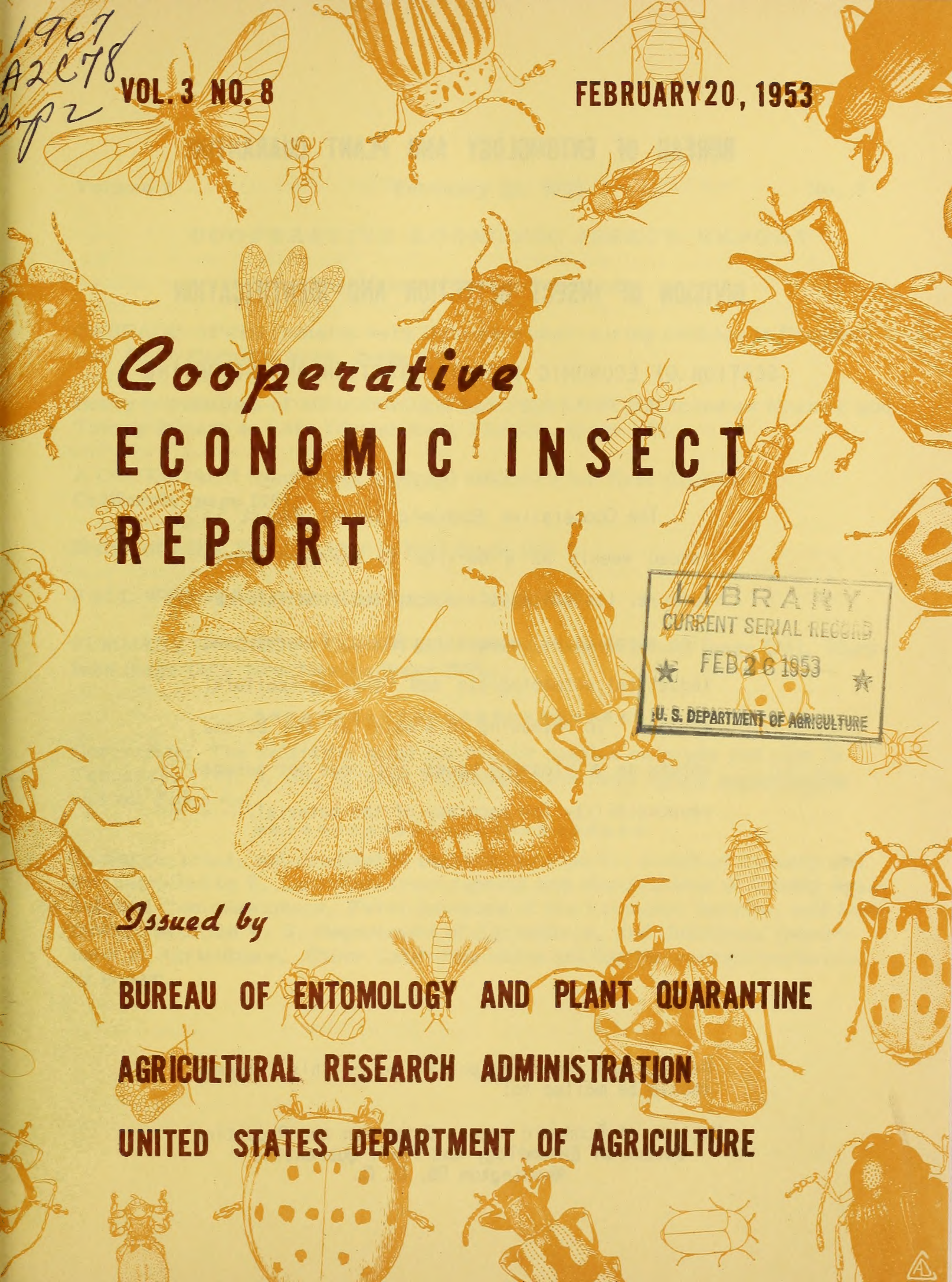
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.967
A2C78
Cop 2

VOL. 3 NO. 8 FEBRUARY 20, 1953



Cooperative ECONOMIC INSECT REPORT

LIBRARY
CURRENT SERIAL RECORD
★ FEB 26 1953 ★
U. S. DEPARTMENT OF AGRICULTURE

Issued by

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
AGRICULTURAL RESEARCH ADMINISTRATION
UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

DIVISION OF INSECT DETECTION AND IDENTIFICATION

SECTION OF ECONOMIC INSECT DETECTION AND REPORTING

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Bureau serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Section of Economic Insect Detection and Reporting
Bureau of Entomology and Plant Quarantine
Washington 25, D. C.

Volume 3 February 20, 1953 No. 8

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

CABBAGE APHID remains very light on winter-spring cabbage in Charleston, South Carolina area. (page 118).

Heavy populations of MELONWORM and PICKLEWORM found on Kramer and Torrey Islands in Lake Okeechobee, Florida. (page 119).

A COCKROACH (*Nauphoeta cinerea*) collected for first time in California (page 120).

Status of PINK BOLLWORM in 1952 (page 121)

FALL WEBWORM control in Europe. (page 123)

SUMMARY OF INSECT CONDITIONS-1952-in Rhode Island (page 125), Maryland (page 126), New Mexico (page 129).

****

Correction: The scientific name for blister beetles on grass and oats in Tennessee (Vol. 3, No. 6, page 74) should have been *Meloe augusticallis* and not *Epicauta*.

****

California notes, not credited to authors, are for the month of January and are compiled by S. Lockwood from reports and observations of County Agricultural Commissioners, Farm Advisors of the Extension Service, and entomologists of the U. S. Department of Agriculture, and California Department of Agriculture. Other California notes are for the current period or as shown.

WEATHER FOR THE WEEK ENDING FEBRUARY 17, 1953

In many sections of the country prevailing temperatures during the past week were near seasonal levels for the first time since December 1952. In the far west average temperatures ranged from a few degrees below normal in most sections to 5 degrees or more above near the Northern Border; in contrast, average temperatures for previous weeks of 1953 had ranged from 6 degrees above normal in the southern portion of this region to 15 degrees or more above in the northern.. At Salt Lake City, Utah, the average temperature for the past week was 12 degrees lower than for the previous week. Below freezing temperatures occurred on several nights in parts of southern California, and in a few districts frost slightly damaged deciduous fruit blossoms.

East of the Rocky Mountains mild weather continued during the entire period in the Northeast and elsewhere until the week end, when a cold air mass from Canada overspread the central interior bringing subzero minima to northern sections, with freezing temperatures approaching the northern portion of Florida at the close of the period.

General precipitation fell over the eastern half of the Nation during the first 3 days of the week. Amounts were generally light to moderate, although in Arkansas and Tennessee, where thunderstorms occurred, 1 to 2 inches of rain fell. Several inches of snow fell in scattered localities along the Northern Border, and freezing rain in the upper Mississippi Valley caused hazardous travel conditions and some local damage to power and communication lines. The heaviest precipitation fell in the South and East on the 14th and 15th; as a storm moved across the northern portion of the Gulf and then up the Atlantic Coast. During this storm several inches of snow fell in the Appalachians and much of the Northeast. From the Great Plains to the Pacific Coast moisture totals for the week were generally less than a quarter of an inch, except in a few widely scattered localities in the northern Rockies and along the north Pacific Coast.

Moisture is badly needed in the western portions of the lower Great Plains where the topsoil is dry and gale winds on the 15th and 16th caused severe dust storms, reminiscent of those in the early 1930's. In the western and south-central Kansas on the evening of the 15th, wind speeds ranged from 45 to 55 m.p.h. and dust extended to a height of 14,000 feet. Somewhat similiar conditions prevailed in eastern Colorado and parts of Oklahoma and Texas.(Summary Supplied by U. S. Weather Bureau)

Weather Bureau's 30 - day Outlook
Mid February to Mid March 1953 *

In response to reader inquiries, we have made arrangements, in cooperation with the WeatherBureau to carry their 30 day weather outlook information which is released at approximately 15 day intervals. We hope that this will be of value.

The Weather Bureau 30-day outlook for the period from mid-February to mid-March calls for temperatures to average below seasonal normals over the eastern one half of the nation with exception of New England and along the Gulf Coast where near normal is indicated. Over the southwest temperatures averaging above normal are predicted, but other western regions are expect to average not far from normal.

The outlook for precipitation indicates greater than normal amounts in the Pacific northwest and along the Atlantic seaboard. Elsewhere seasonal amounts are expected, except subnormal from Oklahoma and most of Texas westward to southern California.

---

* This report released by the Weather Bureau on February 17.

A more detailed weather outlook is prepared by the Weather Bureau. To subscribe to this publication address application, with P. O. money order or check payable to Treasurer of the United States, and mail to Superintendent of Documents, Government Printing Office, Washington 25, D. C. Subscription price is $4.80 per year or $2.40 for six months, postpaid; minimum subscription six months.

CEREAL AND FORAGE INSECTS

CUTWORMS (probably army cutworm Chorizagrotis auxiliaris)-OKLAHOMA - Causing considerable damage to small grains in southwestern areas, February 7. Control measures being applied. (R. G. Dahms).

GREENBUG (Toxoptera graminum)-OKLAHOMA- Very light infestation (2 to 8 per linear foot) in early-seeded wheat fields in Kay, Kingfisher, and Logan Counties, February 7. (R. G. Dahms). TEXAS- Generally light in area near Denton. Parasites and predators numerious in infested spots and should give control if weather remains warm. (H. L. Chada).

MITES ON GRAIN-TEXAS-General throughout grain-growing areas of central and north central Texas. Damage not general. (H. L. Chada).

MITES ON CLOVER-FLORIDA - Unidentified species causing damage to white Dutch clover at Gainsville. (L. C. Kuitert). Spider mites infesting clover in Gadsden County, February 4. (F. E. Guthrie).

LYGUS BUG (Lygus hesperus) -CALIFORNIA-Adults and nymphs infesting alfalfa in Whittier area. (R. E. Campbell).

CLOVER SEED CHALCID (Bruchophagus gibbus) -CALIFORNIA- For the first time this pest has been of economic importance to alfalfa seed growers in the Antelope Valley of Los Angeles County.

FRUIT INSECTS

SAN JOSE SCALE (Aspidiotus perniciosus) -CALIFORNIA - Severe in some peach orchards in Merced County. Medium infestations in peach orchards in Stanislaus County.

OLIVE SCALE (Parlatoria oleae)-CALIFORNIA - Light but spreading infestations in peach orchards occurred in parts of Stanislaus County. Found to be well established in four locations in Willows, Glenn County, on olive trees.

Citrus Pest: Conditions in California during January: CITRUS RUST MITE (Phyllocoptruta oleivora) infestations medium in Orange County. Also reported from some groves in San Diego County. CITRUS BUD MITE (Aceria sheldoni) reported as "common under buttons -- considerable growth distortion" in lemon groves in San Diego County. Moderate infestations of

APHIDS continued in groves in Los Angeles County. Less than normal populations of BLACK SCALE (Saisettia oleae) reported from Los Angeles County citrus groves. Parasites reported responsible for reduction. Light to heavy infestations in San Bernardino County. CALIFORNIA RED SCALE (Aonidiella aurantii) reported light to heavy in citrus in San Bernardino County. Some medium infestations in Orange County. Some heavy infestations of EUROPEAN BROWN SNAIL (Helix aspersa) occurred in Orange County groves.

Citrus Pest Activity in Florida for the first week in February: PURPLE SCALE (Lepidosaphes beckii) infesting 97 percent of groves checked. Increase in activity with beginning of new hatch. Further increase expected. Activity highest, and increasing, in Brooksville District. Also high in Indian River and West Coast Districts. FLORIDA RED SCALE (Chrysomphalus aonidum) in 49 percent of groves. Activity unchanged, but hatch continued. Some increase expected. CITRUS RED MITE (Metatetranychus citri) activity unchanged for the State as a whole, but high and increasing in Bartow, Brooksville and Orlando Districts. Sixty-eight percent of groves infested. CITRUS RUST MITE in 70 percent of groves infested, but a sharp reduction on both leaves and fruit. Further reduction expected. SIX-SPOTTED MITE (Tetranychus sexmaculatus) infestations continue to increase. (Pratt & Thompson)

Possible Dates of Full Bloom of Fruit Trees, Yakima, Wash., 1953, in Comparison with Average Dates

Variety	Possible Bloom Dates: Earliest	Possible Bloom Dates: Average	Possible Bloom Dates: Latest	Average Date (35 years)
Apricot	Mar. 1	Mar. 10	Mar. 20	Apr. 6
Peach (Elberta)	Mar. 8	Mar. 18	Apr. 2	Apr. 14
Cherry (Bing)	Mar. 11	Mar. 20	Apr. 3	Apr. 16
Pear (Bartlett)	Mar. 14	Mar. 25	Apr. 6	Apr. 21
Apple (Winesap)	Mar. 18	Mar. 31	Apr. 12	Apr. 27

These are figured from the minimum, average and maximum intervals that have occurred between blooming of maples and of the various fruits during the last 30 years.

(In 1952 apricots bloomed April 10, cherries April 21 and apples April 26).
(E. J. Newcomer)

TRUCK CROP INSECTS

APHIDS (Aphidae) - SOUTH CAROLINA - Cabbage aphid (*Brevicoryne brassicae*) populations remain very light on winter-spring cabbage, which is quite a contrast to developments at this time of year during the past three years. No insecticide applications for control of this insect have been reported this season. Green peach aphid (*Myzus persicae*) infestations on spinach have practically disappeared, chiefly due to a fungus disease. Turnip aphid (*Rhopalosiphum pseudobrassicae*) moderate on some recently transplanted spring cabbage, insecticides needed in some cases. Approximately three-fourths of commercial spring cabbage plantings too far advanced to be seriously injured by this aphid. (F. P. Cuthbert, Charleston area). FLORIDA- aphids generally distributed in potatoes in southern area, except in fields treated with effective insecticides. (D. O. Wolfenbarger). ALABAMA- Cabbage aphids feeding heavily on cabbage and collards in south Mobile County, January 30. (G. H. Culpepper). TEXAS - Aphids numerous on mustard in Winter Haven area, February 5. (B. H. Richardson). A root aphid causing considerable stunting in cabbage that need irrigation water in Lower Rio Valley. (G. P. Wene). CALIFORNIA - Cabbage aphid moderately infesting 15 acres on cabbage in Buena Park. Heavy infestation on 20 acres of half-mature cauliflower in Ventura County. Unidentified species of aphids infesting 10 acres of lettuce in Ventura County. (R. E. Campbell). WASHINGTON - Green peach aphid has been hatching in the lower Yakima Valley for the past week. (E. J. Newcomer).

VEGETABLE WEEVIL (*Listroderes costirostris obliquus*) - VIRGINIA - Larvae injuring some plantings of spinach at Norfolk. Damage to the leaves would down-grade the spinach seriously. Also present on old plants of mustard in small gardens. (Brubaker, Greenwood, Hofmaster) GEORGIA - Immature stages damaging turnips in Albany, January 29. (M. R. Osburn). Moderate infestation of lavae on turnips in home gardens in Tifton area, January 28. (L. W. Morgan). FLORIDA - Appearing in tobacco seedbeds in Gadsden County and adjacent territory. (L. M. May). ALABAMA - Light infestation damaging turnips and mustard in south Mobile County, January 30. (G. H. Culpepper).

SEED-CORN MAGGOT (*Hylemya cilicrura*) - SOUTH CAROLINA - Moderate infestations continue in buds of spinach, a relatively minor commercial crop in this area. Also causing very light damage to young cabbage in some plantings. (F. P. Cuthbert, Charleston area).

YELLOW-MARGINED LEAF BEETLE (Microtheca ochroloma) - ALABAMA - Light to heavy infestations feeding on turnips in south Mobile County, January 30. (G. H. Culpepper).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - FLORIDA - Moderate infestations on turnips and lettuce in Gadsden County and adjacent areas, February 4. (L. M. May).

CABBAGE LOOPER (Trichoplusia ni) - TEXAS - Severe injury to untreated fields in Lower Rio Grande Valley. (G. P. Wene).

SPIDER MITES - VIRGINIA - Light but well distributed infestations on strawberries in Norfolk area. While weather has been too cool for much injury yet, populations are large enough to develop into a serious problem if control measures are not employed in time. (Brubaker, Greenwood, Hofmaster). Two-spotted spider mite (Tetranychus bimaculatus) - CALIFORNIA - Continuing to increase on strawberries in Orange County. Practically all fields have received insecticidal treatment. (R. E. Campbell).

A CURCULIONID - FLORIDA - Unidentified genus prevalent and injurious in strawberry plantings in Miami area. (D. O. Wolfenbarger).

CUTWORMS (Phalaenidae) - TEXAS - Black cutworm (Agrotis ypsilon) damaging potatoes and beets in San Benito area. (P. T. Riherd). Young cantaloup stands are being destroyed by cutworms in Lower Rio Grande Valley. Tomatoes are being damaged by cutworms. (G. P. Wene). Carrots being damaged in Winter Haven area. (B. H. Richardson). CALIFORNIA - Unidentified species reported causing "considerable damage" to lettuce and young melons in parts of Riverside County.

LEAF MINERS - FLORIDA - Serpentine leaf miner abundant in some potato and in many bean fields in southern area, January 29. (D. O. Wolfenbarger). TEXAS - Damaging tomato seedlings in Lower Rio Grande Valley, February 5. (G. P. Wene).

DARKLING BEETLES (Tenebrionidae) - TEXAS - Damaging tomatoes in Lower Rio Grande Valley, February 5. (G. P. Wene).

Heavy population of PICLEWORM (Diaphania nitidalis) and MELONWORM (D. hyalinata) found on the Okeechobee gourd Pepo Okeechobeensis on Kramer and Torrey Islands in Lake Okeechobee, FLORIDA. The pickleworm was boring into the young gourds and into unopened blossoms; larger gourds were very hard and the larvae were probably unable to penetrate the shell. STRIPED CUCUMBER BEETLE (*Acalymma vittata*) was also found on these vines in large numbers. (W. G. Genung).

WEEVILS (*Brachyrhinus ovatus* and *B. rugosostriatus*) - UTAH - Apparently surviving very mild winter with very little mortality in Logan and Providence areas. (G. F. Knowlton).

PEA APHID (*Macrosiphum pisi*) - CALIFORNIA - Light infestation in 10 acres of winter peas in Orange County. (R. E. Campbell).

EUROPEAN EARWIG (*Forficula auricularia*) - CALIFORNIA - Warm weather brought this pest out of hibernation with damage to vegetables in Marin County.

FIELD CRICKET (*Acheta assimilis*) - CALIFORNIA - Severe damage to pepper and tomato plants in some cold frames occurred in Merced County.

ARTICHOKE PLUME MOTH (*Platyptilia carduidactyla*) - CALIFORNIA - Infestations of the second generation were spotty but damage as high as 25 percen of the buds reported. Light to moderate infestations were reported from Santa Cruz County.

APHIDS (Aphidae) - CALIFORNIA - Heavier than usual infestations on ornamentals reported occurring over entire Los Angeles County.

STORED-PRODUCTS INSECTS

A COCKROACH (*Nauphoeta cinerea*) - CALIFORNIA - Collected for the first time in the State at Naval Supply Center, Oakland, December 23, 1952. The insect was discovered by workmen sorting a shipment of teak wood which had originated in Bangkok, Siam. Specimens were submitted by H. E. Ogborn. Literature shows that this insect is definitely predaceous, though it also feeds on fruits, feeding stuffs, and other plant material in storage. (H. M. Armitage)

FIBER PLANT INSECTS

COTTON STAINER (*Dysdercus suturellus*) - FLORIDA - Both adults and nymphs found feeding on dry, fallen seed of kenaf (*Hibiscus cannabinus*), few found on stalks. (W. G. Genung, Belle Glade area).

STATUS OF PINK BOLLWORM IN 1952

Since the finding of the first pink bollworm (Pectinophora gossypiella) in the United States, near Hearne, Texas in 1917, this insect has spread to approximately 260 counties in Texas, Oklahoma, Louisiana, New Mexico, and Arizona. The map below shows the areas in these states under regulation as of January 1, 1953.

During 1952 the cooperative gin trash inspection program showed the following counties in Texas, Oklahoma, Louisiana and Arizona to be newly infested. As can be seen from the map, the counties are near or adjacent to the old quarantine areas in these states.

ARIZONA
Pima

LOUISIANA
De Soto

OKLAHOMA
Canadian
Cleveland
Custer
Garvin
Hughes
Love

TEXAS
Anderson
Angelina
Briscoe
Camp
Cass

TEXAS (Cont'd)
Castro
Cherokee
Collin
Deaf Smith
Delta
Denton
Ellis
*Fannin
Grayson
Gregg
Hardin
Henderson
Hopkins
Houston
Jasper
Kaufman
*Lamar
Madison
Montgomery

TEXAS (Cont'd)
Morris
Nacogdoches
Panola
Parmer
Polk
Red River
Rockwell
Rusk
San Jacinto
Shelby
Smith
San Augustine
Titus
Trinity
Upshur
Van Zandt
Walker

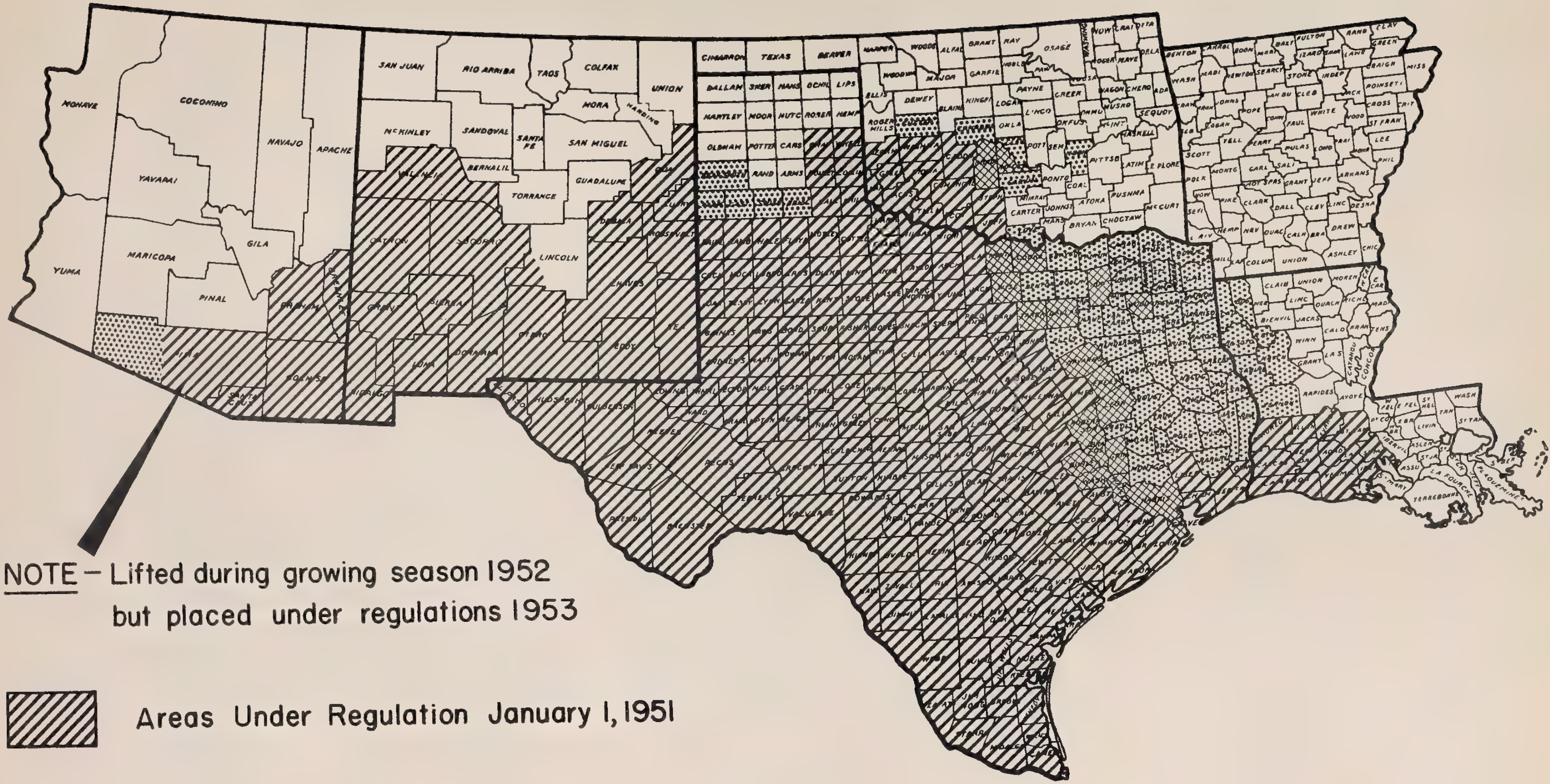
*Found infested by light trap collection.

Activity in south Texas- 1952: Pink bollworm survived the winter of 1951-52 in larger numbers in Texas than any previous year. By May 1, 1952, of the cotton fields inspected in the Lower Rio Grande Valley, 70 percent were found infested, and the general infestation was much heavier than ever before. Bloom inspection, which was completed June 30, showed an average infestation of 1.22 percent in southern Texas. This compared to .05 percent infestation found by bloom inspection in 1951. Inspections in 3, 660 fields showed 64 percent infestation compared to 22 percent in 3, 660 fields inspected in 1951. Gin trash inspection in the infested area of southern Texas showed phenomenal increases in the number of pink bollworm over the 1951 findings. Pink bollworm caused commercial damage to cotton for the first time in 1952. The heaviest damage was in a 38-county area of south Texas.

Trapping Records - September 1952 through January 1953: Collections of pink bollworm moths from 8 light traps in the Lower Rio Grande Valley, Texas: September, 3, 476; October, 103; November, 3; December, 2; and January, 0. Collections in the Corpus Christi, Texas area from 4 light traps; September, 7,231; October, 379; November, 77; December, 0; and January, 0.

Emergence of Moths from Cages: Cage studies at Brownsville, Texas show pink bollworm moths have been emerging throughout the winter of 1952-53 from fruiting forms of alternate hosts collected from Calhoun, Refugio, San Patricio and Cameron Counties of the coastal area of Texas. (Division of Insects Affecting Cotton and Other Fiber Plants).

PINK BOLLWORM REGULATED AREAS
JANUARY 1, 1953



NOTE – Lifted during growing season 1952 but placed under regulations 1953

▨ Areas Under Regulation January 1, 1951

▩ Areas Infested During Year Prior to January 1, 1952

░ Areas Placed Under Regulation During Year Prior to January 1, 1953

FOREST INSECTS

MIMOSA WEBWORM (*Homadaula albizziae*) - TENNESSEE - A rather heavy infestation of pupae observed attached to walls and sills of buildings in Memphis, November 12, 1952. These insects fed extensively on mimosa, honey locust and black locust in certain parts of the city in 1952. (G. H. Culpepper).

Fall Webworm Control Program in Europe

FALL WEBWORM (*Hyphantria cunea* (Drury)) has invaded Yugoslavia and Austria. Probably introduced during World War II, it threatens to become an important economic pest in Europe. By late 1952 it had been recorded on 94 species of host plants, including many seldom attacked by insects.

Concentrated and effective cooperative control efforts were inaugurated in 1952 by Yugoslavia and Austria, with France, Italy, Switzerland and Federal Germany, the Director of Agriculture Division of F A O and the European Plant Protection Organisation. In addition biological control was undertaken in Yugoslavia with F A O funds, part of which were allocated to the Commonwealth Institute of Biological control in Canada for parasite collection work in that country and the United States. Excellent facilities for cooperative research and worker training programs have also been developed. It is probably the largest cooperative insect control program ever undertaken in Europe.

Insecticides, mostly DDT and BHC with some Parathion, were applied with hand, ground and aerial equipment. Austria and Yugoslavia provided operating funds in the approximate amount of 152,000 pounds sterling and the former also spent 220,000 pounds for machinery, most of which was used for webworm control. Large acreages were sprayed, including 100,000 trees in Austria. France, Italy, Switzerland, Federal Germany and the European Plant Protection Organisation furnished large quantities of insecticides and application equipment.

(Condensed from bulletins: 1. *Hyphantria cunea*, Drury. European Plant Protection Organisation. Paris. February, 1952. 2. *Hyphantria cunea* Drury. European Plant Protection Organisation. 2nd Vienna Conference, 7-8 Nov., 1952. Paris. December, 1952.)

Recent Important Interceptions at Ports of Entry

Living larvae of *Laspeyresia splendana* (Hbn.), the so-called nut fruit tortrix, were intercepted recently in chestnuts in plane baggage, cargo, and mail from England and Italy at Boston (Beauchamp, Crowell, Hodson, Jones); in ships' baggage and mail from Yugoslavia and Italy at Philadelphia (Freedland, Boeshore); and in ships' stores from Portugal at Galveston (Mirimanian, Beavers). This insect is said to be quite destructive to chestnuts throughout Europe. It has also been reported from acorns and walnuts. Living larvae of *Sesamia cretica* Led., the so-called durra stem borer, were intercepted recently in broomcorn in cargo from Italy at Baltimore (M. G. Vinzant). This borer is considered a serious pest of corn, broomcorn, and sorghum in southern Europe, North Africa, and the Near East.

Living larvae of the false codling moth, *Argyroploce leucotreta* Meyr., were intercepted recently in grapefruit in ship's stores from South Africa at Philadelphia (Freedland). This insect has a variety of hosts that includes oranges, grapefruit, guavas, persimmons, avocados, olives, walnuts, and cotton bolls. Larval injury resembles that of the codling moth except that infested fruits drop more prematurely. It has been reported injurious in South Africa, British East Africa, Rhodesia, Sierra Leone, Uganda, and Tanganyika (Sartor). Living larvae of *Carposina sasakę* Mats., the so-called peach fruit moth, were intercepted recently in apples in stores from Japan at Seattle (Nelson), Anchorage (Rounds), and Honolulu (Bowman, Bach-Wiig, Davidson). This insect is considered a major pest of apples and peaches in Japan and Korea. It also attacks apricots, pears, plums, and quinces. Injury is caused by the larvae boring in the fruit and feeding on the seeds. Neither of these two insects is known to occur in the United States.

SUMMARY OF INSECT CONDITIONS - 1952

RHODE ISLAND

Reported by M. C. Shurtleff

Fruit Insects: Serious pests of apple during the year included PLUM CURCULIO (Conotrachelus nenuphar), APPLE APHID (Aphis pomi), ROSY APPLE APHID (Anuraphis roseus), EUROPEAN RED MITE (Metatetranychus ulmi) and APPLE MAGGOT (Rhagoletis pomonella). Apple maggot adults emerged over a long period and most growers stopped spraying too early. Many flies were emerging as late as September 1 from grower-operated traps. European red mite injury was severe in many orchards. Among apple pests of minor importance were CODLING MOTH (Carpocapsa pomonella), which shows signs of reappearing in numbers, and TWO-SPOTTED SPIDER MITE (Tetranychus bimaculatus). Although few peaches are grown commercially in Rhode Island, PLUM CURCULIO and ORIENTAL FRUIT MOTH (Grapholitha molesta) were important pests on this crop.

Vegetable Insects: FLEA BEETLES and early blight caused some injury to potatoes early in the season, while APHIDS were the most serious pest threat to this crop late in the season. Other important pests of vegetables during 1952 include CABBAGE MAGGOT(Hylemya brassicae), CORN EARWORM (Heliothis armigera), FLEA BEETLES, APHIDS, ASPARAGUS BEETLE (Crioceris asparagi), CUTWORMS, MEXICAN BEAN BEETLE (Epilachna varivestis), CUCUMBER BEETLES, SQUASH BUG (Anasa tritis), CABBAGEWORMS, LEAF HOPPERS, PLANT BUGS, MITES, JAPANESE BEETLE (Popillia japonica), and BLISTER BEETLES.

Insects Affecting Ornamentals: Since the State is now largely urban and industrialized, a large percentage of the pest problems are on ornamentals and concern the individual home owner. Three species of Lecanium scale are established on and threatening ornamental trees and shrubs in Newport and Middletown. These insects are abundant on oak, elm, dogwood, horsechestnut, linden, rose, maple and other species. JAPANESE BEETLE injury was severe all over the State during 1952 and was the worst for the nine-year history in some areas. One of the major pest control problems in 1953 will be BARK BEETLES, vectors of Dutch elm disease. Approximately 300 trees were found infected with DUTCH ELM DISEASE in 1952, compared with only 60 in 1951.

MARYLAND

Reported by T. L. Bissell

New and Noteworthy Insects: ALFALFA WEEVIL (Hypera postica) - Probably the most important insect find in Maryland in 1952 was the alfalfa weevil. First recognized in April it was found to be distributed over 15 counties, from Carroll and Montgomery to Cecil and Prince Georges, and over all the Eastern Shore Counties except Somerset. None were found from Frederick County westward. Noticeable damage occurred in Baltimore, Harford, Cecil and Anne Arundel Counties. Most of the feeding was on the first cutting of alfalfa, some on the second cutting. VEGETABLE WEEVIL (Listroderes costirostris obliquus) grubs were found on tobacco in several plant beds in St. Marys County. This is the first known occurrence in the State. FOWL TICK (Argas persicus) - A small flock of chickens in the southern part of Baltimore City was found infested in June. This tick has been picked up occasionally in Maryland. WALKINGSTICK (Diapheromera femorata) - A spectacular outbreak defoliated many acres of forests in western Maryland and adjoining states in the late summer. Town Hill Mountain in Allegany County was the center. Several kinds of oaks and other deciduous trees were infested. A SCALE INSECT (Poliaspis pini Maskell), new to the United States, was collected on Scotch pine trees at Towson, in October. PINE SAWFLIES- A heavy outbreak of sawflies developed in Wicomico, Dorchester and Talbot Counties in May and June. One seven-acre woods was stripped. Larvae from one area were determined as Neodiprion dyari Rohw. POTATO LEAFHOPPER (Empoasca fabae) was unusually abundant, damaging potatoes, beans, alfalfa and ladino clover. BLACK CUTWORM (Agrotis ypsilon) caused unusual injury to corn on the Eastern Shore, often making two replantings necessary. Occurred much later than usual, with injury on Kent Island noted as late as June 30. A small green and copper-colored WEEVIL, Cytepistomus castaneus (Roel.), has been prevalent for a few years in the area from Baltimore to Washington. It is an introduction from Japan. Weevils are found feeding on oak trees and sometimes invade buildings in great numbers. Habits of the larvae are unknown.

Corn and Hay Crop Insects: EUROPEAN CORN BORER (Pyrausta nibilalis) - Moths in the field were first observed May 2, at Salisbury; emergence from cornstalks continued for several weeks thereafter. The first eggs on corn were found June 11 in Queen Annes, other Eastern Shore Counties, and in

Montgomery County. On July 15 heavy damage to garden sweet corn was observed at Snow Hill. Somewhat more than usual damage to canning corn was reported in northern and eastern Maryland. There was a slight rise in the fall population of borers in cornstalks; the State average was 66 per hundred stalks in 1951 and 77 per 100 in 1952. Heavy populations occurred in a few fields in Caroline and Wicomico Counties. Parasites were found to kill 33 per cent of the over-wintering corn borers, which is about the usual level. The fly parasite *Lydella* was less effective than previously and the wasp *Microcentrus* was more effective. CORN EARWORM (*Heliothis armigera*) was abundant and caused heavy damage in late canning corn. CORN LEAF APHID (*Aphis maidis*) was noted in August. MEADOW SPITTLEBUG (*Philaenus leucophthalmus*) was very injurious to red clover and alfalfa, from Washington County eastward to Talbot (the usual area). An example of injury by adult spittlebug to second cutting alfalfa was observed--most of the damage is by the immature bugs to first cutting. Sprays applied by farmers, gave 24 per cent increase in red clover yields and 13 per cent in alfalfa. PEA APHID (*Macrosiphum pisi*) was quite injurious to alfalfa in some areas, particularly in Washington, Frederick and Talbot Counties. It came in first cutting with spittlebug. CLOVER LEAF WEEVIL (*Hypera punctata*) - Unusually abundant in Harford and Prince Georges Counties early in April. Apparently no serious damage. Larvae which feed on the leaves were killed by a common fungus parasite. SWEET CLOVER WEEVIL (*Sitona cylindricollis*) - Collected in Carroll County and other places. GRASSHOPPERS- Injurious to red clover in Queen Anne County in August. LEAFHOPPER- Severe damage to alfalfa.

Fruit Insects: (in western Maryland). CODLING MOTH (*Carpocapsa pomonella*) - Injury from 1st brood about normal. The 2nd and 3rd brood were much heavier than usual, which resulted in increased injury to fruit. This increased population was attributed to hot and dry weather. PLUM CURCULIO (*Conotrachelus nenuphar*) - Very little injury to either peaches or apples. The spray program used was highly effective. RED BANDED LEAF ROLLER (*Argyrotaenia velutinana*) - Population of 1st, 2nd and 3rd broods were much lighter than in 1951. YELLOW-NECKED CATERPILLAR (*Datana ministra*) caused injury in localized areas. Not as widely distributed as in 1951. GRASSHOPPERS: The few infestations noted were lighter than occurred in previous years. EUROPEAN RED MITE: (*Metatetranychus ulmi*) - Population about the same as in previous years and no serious infestation occurred. TWO-SPOTTED SPIDER MITE (*Tetranychus bimaculatus*) - Extremely heavy infestation occurred in spots during late August. Damage much heavier than has ever occurred in this area. CAT-FACING INSECTS: Population about the same as has occurred in the past several years. Practically no damage in well sprayed orchards.

ROSY APPLE APHID (Anuraphis roseus) - Considerable damage in practically all orchards where dormant spray was not applied. APPLE APHID (Aphis pomi) - Heavy infestations occurred the later part of June causing some damage to foliage, but not as severe as occurred in 1951. C. Graham. JAPANESE BEETLE (Popillia japonica) numbers and damage have decreased over most of the State, but the beetles were more noticeable than before in southern Maryland and westward from Frederick County to Allegany. Heaviest general infestations were in St. Marys, Calvert, Charles and southern Anne Arundel Counties. Large numbers occurred in new suburban develoments around Washington where new lawns hadbeen made. The Tiphia wasp, parasitic on Japanese beetle, was especially abundant in Baltimore City and County.

Tobacco Insects: TOBACCO BUDWORM (Heliothis virescens) caused concern locally but on the whole was not over abundant. GREEN PEACH APHID (Myzus persicae) was light and there was little need for airplane dusting. HORNWORM (Protoparce spp.) injury was negligible in most fields. Electric light traps* have been operated experimentally for two years in Maryland to catch hornworm moths, and study the possible value of traps in hornworm control. The moths of both species of hornworm that attack tobacco were caught in considerable numbers. In 1951 the tobacco hornworm moths caught outnumbered the tomato hornworm moths about 3 to 1; in 1952 more of the tomato species were caught than the tobacco species, in fact less than one-third as many tobacco moths were caught as in 1951. More males were caught each year than females, however, the proportion of thetes sexes caught each year for each species was different. In 1951 the proportion of male tobacco moths was 9 to 1 and the tomato species about 2 to 1, while in 1952 these figures were 3 to 1 and 2 to 1 respectively. An attempt was made to estimatethe egg laying potential of the female moths caught. About 10 percent of the tobacco species and 5 percent of the tomato species had laid most of their eggs when caught. Most of the other 90 to 95 percent caught were potentially heavy egg layers, with possibly a third of them having laid more than one-half of their quota of eggs. *H. S. McConnell.

Vegetable Insects: ASPARAGUS BEETLE (Crioceris asparagi) was heavy in Cecil County in May. BEAN LEAF BEETLE (Cerotoma trifurcata) was severe on beans in St. Marys County; also noted on a beach vine. MEXICAN BEAN BEETLE (Epilachna varivestis) occurred over the State as usual, with considerable damage to early baby lima fields. SEED CORN MAGGOT (Hylemya cilicrura) was severe in spots. CORN EARWORM (Heliothis armigera) caused 20 percent damage to fall limas. CABBAGEWORMS plentiful in spring; APHID plentiful in fall. STRIPED CUCUMBER BEETLE (Acalymma vittata), MELON APHID (Aphis gossypii), and PICKLEWORM (Diaphania nitidalis) populations on cucumbers were normal. PEA APHID did considerable damage to peas on the Eastern Shore, but was not important on the Western Shore. FLEA BEETLES were active on potatoes from the time plants emerged and continued abundant. COLORADO POTATO BEETLE (Leptinotarsa decemlineata was also abundant. POTATO LEAFHOPPER was severe in all parts of the State. EUROPEAN CORN BORER damage potato vines in eastern, southern and western areas. BEETLES were usually of minor importance on tomatoes and HORNWORMS were very light. APHIDS were heavy on tomatoes in September in Montgomery County. Some TOMATO FRUITWORM damage occurred.

NEW MEXICO

Reported by M. Swoboda

Cereal and Forage Insects: Early in the spring ARMY CUTWORM (Chorizagrotis auxiliaris) caused severe damge to wheat in the eastern part of the State; however, control measures were not carried out because the drought caused the wheat to die before the worms could destroy it. Severe infestations of PEA APHID (Macrosiphum pisi) occurred in alfalfa early in the season throughout theState. Control measures were carried out whenever temperatures permitted. SAY STINK BUG (Chlorochroa sayi) caused considerable damage to grain sorghum and alfalfa being grown for seed, but whenever the infestations were found in time damage was almost nil.

Range Insects: A severe infestation of range GRASSHOPPERS occurred in the northeastern part of the State. Control operations were carried out on 315,000 acres. Some 23 species of grasshoppers were present, the dominant four being Drepanopterna femoratum, Phlibostroma quadrimaculatum, Opeia obscura, and Amphitornus coloradus ornatus. Good control results, ranging from 98 to 100 percent, were obtained.

Fruit Insects: Infestations throughout the State were moderate. CODLING MOTH (Carpocapsa pomonella) was the most serious pest. Wherever control measures were properly carried out damage was low. A BROWN CLOVER MITE (Bryobia sp.) was unusually heavy in orchards where legume cover crops were grown. Various PLANT BUGS and SAY STINK BUG were especially abundant and caused considerable damage to fruit in the northern part of the State. WOOLLY APPLE APHID (Eriosoma lanigerum) was abundant in all apple growing areas. A large number of old orchards will be pulled within the next few years because of the severe infestations on the roots.

Vegetable Insects: SAY STINK BUG caused severe damage to pinto beans and tomatoes throughout the State. VARIGATED CUTWORM (Peridroma margaritosa) almost destroyed the vegetables in the Cloudcroft-Mayhill area. The worms were so abundant that they not only devoured the tops of the plants, but also ate the roots. Control measures were difficult to carry out because at high elevations almost daily rains occurred. MEXICAN BEAN BEETLE (Epilachna varivestis) caused moderate damage to field beans but severe damage to small gardens. TOMATO FRUITWORM (Heliothis armigera) was especially severe to small backyard gardens. In some areas sweet corn was one-hundred percent infested. BEET LEAFHOPPER (Circulifer tenellus) occurred in the highest populations since 1941. All susceptible vegetable crops were severely infested. Curly top disease which is spread by the beet leafhopper was of course severe.

Cotton Insects: Insect damage to cotton was generally light throughout the State. However, there were some scattered serious infestations of BOLLWORM (Heliothis armigera). SPIDER MITES caused some damage throughout the season. The main species involved was (Tetranychus bimaculatus). Considerable treatment was necessary to control COTTON LEAFWORM (Alabama argillacea). Leafworm infestations were found throughout the State wherever cotton was grown.

Livestock Insects: There was no unusual livestock pest problem this year. HORN FLIES, STABLE FLIES and HORSE FLIES were about normal in abundance. Infestations of LICE were also about normal.

Household Insects: HOUSE FLY (Musca domestica) occurred in extremely high populations from early until late season. Populations in most parts of the State were the highest in several years. Housewives were troubled more than usual by infestations of A CLOVER MITE (Bryobia sp.).

[illegible]

Cooperative
ECONOMIC [illegible]
REPORT

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

AGRICULTURAL RESEARCH ADMINISTRATION

UNITED STATES DEPARTMENT OF AGRICULTURE